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10/789,537	02/26/2004	Hajime Nakamura	60931 (47762) 9442	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.		Applicant(s)				
		10/789,537		NAKAMURA ET AL.				
Office Action	on Summary	Examiner		Art Unit				
•		Hibret A. Wo	ldekidan	2613 ′				
The MAILING DA	ATE of this communication app	pears on the c	over sheet with the c	orrespondence ad	ldress			
A SHORTENED STAT WHICHEVER IS LONG - Extensions of time may be avaifter SIX (6) MONTHS from the If NO period for reply is specified Failure to reply within the set	UTORY PERIOD FOR REPL'SER, FROM THE MAILING D. ailable under the provisions of 37 CFR 1.1 the mailing date of this communication. ided above, the maximum statutory period for extended period for reply will, by statute the later than three months after the mailing tr. See 37 CFR 1.704(b).	OATE OF THIS 136(a). In no event, will apply and will e e, cause the applica	COMMUNICATION however, may a reply be tim xpire SIX (6) MONTHS from tion to become ABANDONE	N. nely filed the mailing date of this c D (35 U.S.C. § 133).				
Status								
1) Responsive to co	ommunication(s) filed on <u>26 F</u>	ebruary 2004						
2a) This action is FIN								
,	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
closed in accorda	ance with the practice under E	Ex parte Quay	76, 1935 C.D. 11, 45	03 U.G. 213.				
Disposition of Claims								
4a) Of the above 5) ☐ Claim(s) is 6) ☑ Claim(s) <u>1-20</u> is/3 7) ☐ Claim(s) is	are rejected.	wn from cons						
Application Papers								
10)⊠ The drawing(s) fil Applicant may not Replacement draw	is objected to by the Examine ed on 26 February 2004 is/ard request that any objection to the ring sheet(s) including the correct ration is objected to by the Examine.	re: a) acce drawing(s) be ction is required	held in abeyance. See if the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 Cl	FR 1.121(d).			
Priority under 35 U.S.C. §	119							
<ul> <li>12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a)  All b)  Some * c) None of:</li> <li>1.  Certified copies of the priority documents have been received.</li> <li>2.  Certified copies of the priority documents have been received in Application No</li> <li>3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>								
Attachment(s)  1) Notice of References Cited 2) Notice of Draftsperson's Pa	atent Drawing Review (PTO-948)		) Interview Summary Paper No(s)/Mail Da	ate				
3) Information Disclosure Star Paper No(s)/Mail Date 02/2			)  Notice of Informal P )  Other:	atent Application				

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## **DETELED ACTION**

## Information Disclosure Statement

1. The information disclosure statement filed 02/15/2005 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because complete references number for the US published patents have not been supplied. Therefore those references have not been considered and have been lined through on the respective 1449. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

For consideration of the crossed out references and new 1449 should be submitted with complete reference numbers.

## Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahirat et al. (6,879,783) in view of Watanabe et al. (US 2001/0036202).

Consider claim 1 Nakahira discloses a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme (See Col. 11 lines 55-62, abstract, fig. 2,3 i.e. a wavelength path allocation method for a node device comprising a wavelength division multiplexing used in optical communication network), comprising: a buffer that stores packets of input traffic (See Col. 5 lines 35-45 and 53-58 i.e. a buffer for storing packets); a packet transmission control section that fetches packets from the buffer (See Col. 9 lines 10-13 i.e. a node control section comprising a packet read to bring or transmit packet from the buffer), and, with top priority given to a semifixed initial path(See Col. 24 lines 55-59, Col. 23 lines 39-48, Fig. 3,11 i.e. optical path where priority is given for packet transmission and packets transmitted to the first OXC or the semifixed initial path), distributes the packets to the initial path and to dynamically allocated additional paths (See Col. 13 lines 24-30 and 46-55, Col. 14 lines 7-27 i.e. node control section comprising a cut-through request packet processing part for distributing or transferring packets and optical path allocation request packet for allocating paths); a control section that controls allocations of the additional paths based on distribution states of packet units in the packet transmission control section(See Col. 14 lines 7-27 i.e. Optical path switching and router control part for controlling the

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allocation in the node control section); and a wavelength path switching section that switches wavelength paths in accordance with the allocation control of the additional paths (See Col. 12 lines 6-20 i.e. optical cross connect section for switching optical paths).

Nakahira does not specifically disclose distributing the packets in a predetermined order of priorities.

Watanabe teaches distributing the packets in a predetermined order of priorities (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Nakahira, and distribute the packets in a predetermined order of priorities, as taught by Watanabe, thus allowing effectively synchronized data transmission system in a network, as discussed by Watanabe (Paragraph 6).

Consider claim 2 Nakahira discloses a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme (See Col. 11 lines 55-62, abstract, fig. 2,3 i.e. a wavelength path allocation method for a node device comprising a wavelength division multiplexing used in optical communication network), comprising: a monitoring section that monitors packets of input traffic that are distributed (See Col. 12 lines 23-45, fig. 2 i.e. a node control section comprising a

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node determination part for monitoring or determining the input packet that are inputted from the router), with top priority given to a semifixed initial path(See Col. 24 lines 55-59, Col. 23 lines 39-48, Fig. 3,11 i.e. optical path where priority is given for packet transmission and packets transmitted to the first OXC or the semifixed initial path), to the initial path and to dynamically allocated additional paths (See Col. 13 lines 24-30 and 46-55, Col. 14 lines 7-27 i.e. node control section comprising a cut-through request packet processing part for distributing or transferring packets and optical path allocation request packet for allocating paths); a control section that controls allocations of the additional paths based on distribution states of packet units obtained by the monitoring(See Col. 14 lines 7-27 i.e. Optical path switching and router control part for controlling the allocation in the node control section); and a wavelength path switching section that switches wavelength paths in accordance with the allocation control of the additional paths (See Col. 12 lines 6-20 i.e. optical cross connect section for switching optical paths based on the node control section).

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

Consider claim 3 Nakahira discloses a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme (See Col. 11 lines 55-

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62, abstract, fig. 2,3 i.e. a wavelength path allocation method for a node device comprising a wavelength division multiplexing used in optical communication network), comprising: a monitoring section that monitors packets of input traffic that are distributed(See Col. 12 lines 23-45, fig. 2 i.e. a node control section comprising a node determination part for monitoring or determining the input packet that are inputted from the router), with top priority given to a semifixed initial path(See Col. 24 lines 55-59, Col. 23 lines 39-48, Fig. 3,11 i.e. optical path where priority is given for packet transmission and packets transmitted to the first OXC or the semifixed initial path), to the initial path and to dynamically allocated additional paths (See Col. 13 lines 24-30 and 46-55, Col. 14 lines 7-27 i.e. node control section comprising a cut-through request packet processing part for distributing or transferring packets and optical path allocation request packet for allocating paths); a first control section that controls allocations of the additional paths based on distribution states of packet units obtained by the monitoring(See Col. 14 lines 28-43 i.e. node control section comprising a router control part for controlling the allocation of the additional paths); a first wavelength path switching section that switches wavelength paths in accordance with the allocation control of the additional paths by the first control section(See Fig. 11 i.e. Col. 11 lines 63-67 and Col. 12 lines 1-5, Col. 14 lines 21-26, fig. 3,11 illustrates that a router or a first switching section for switching wavelengths in accordance to the router control part); a buffer that stores packets of the input traffic (See Col. 23 lines 49-57, Fig. 11, i.e. a buffer for storing the input packets or traffic); a packet transmission control section that fetches

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packets from the buffer (See Col. 23 lines 39-48, Fig. 11, i.e. a switch function part for guiding packet transmission from the buffer), and, with top priority given to the initial path(See Col. 24 lines 55-59 i.e. optical path where priority is given for packet transmission), distributes the packets to the initial path and to the additional paths (See Fig. 11 i.e. fig. 11 illustrates that a router for distributing packets to initial terminal, control function part, to the second switching device(OXC) via the buffer and switch function part); a second control section that controls allocations of the additional paths based on distribution states of packet units in the packet transmission control section(See Col. 14 lines 7-20, Fig. 2 i.e. path switching control part (2B4) for controlling the allocation of packets based on the allocation request packet); and a second wavelength path switching device that switches wavelength paths in accordance with the allocation control of the additional paths by the second control section (See Col. 14 lines 12-20, fig. 11 i.e. optical cross connect or a second wavelength path switching device for switching wavelengths based on the second controller or the optical path switching control part).

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

Consider claim 4 Nakahira discloses the wavelength path switching node apparatus according to claim 1, wherein the packet transmission control section distributes packets to the additional paths (See abstract, Col. 5 lines 15-20, Fig. 11 i.e. fig. 11 a router for distributing packets to different paths)

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Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

Consider claim 5 Nakahira discloses the wavelength path switching node apparatus according to claim 3, wherein the packet transmission control section distributes packets to the additional paths (See abstract, Col. 5 lines 15-20, Fig. 11 i.e. fig. 11 a router for distributing packets to different paths)

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order)

Consider claim 6 Nakahira discloses the wavelength path switching node apparatus according to claim 1, wherein the control section allocates at least one reserve additional path when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Consider claim 7 Nakahira discloses the wavelength path switching node apparatus according to claim 2, wherein the control section allocates at least one reserve additional path when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

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Consider claim 8 Nakahira discloses the wavelength path switching node apparatus according to claim 3, wherein the control section allocates at least one reserve additional path when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Consider claim 9 Nakahira discloses the wavelength path switching node apparatus according to claim 4, wherein the control section allocates at least one reserve additional path when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Consider claim 10 Nakahira discloses the wavelength path switching node apparatus according to claim 5, wherein the control section allocates at least one reserve additional path when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Considering Claim 11 Nakahira discloses a wavelength path allocation method for a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of

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traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme (See Col. 11 lines 55-62, abstract, fig. 2,3 i.e. a wavelength path allocation method for a node device comprising a wavelength division multiplexing used in optical communication network), comprising: a step in which packets of input traffic are stored in a buffer(See Col. 23 lines 49-57, Fig. 11, i.e. packets of input traffic stored in a buffer); a packet distributing step in which packets are fetched from the buffer(See Col. 23 lines 39-48, Fig. 11, i.e. a packet distributing or guiding step in which packets are transmit from the buffer using the switch function part), and, with top priority given to a semifixed initial path(See Col. 24 lines 55-59, Col. 23 lines 39-48, Fig. 3,11 i.e. optical path where priority is given for packet transmission and packets transmitted to the first OXC or the semifixed initial path), the packets are distributed to the initial path and to dynamically allocated additional paths (See Fig. 11 i.e. fig. 11 illustrates that a router for distributing packets to initial terminal, control function part, to the second switching device(OXC) via the buffer and switch function part); and a step in which allocations of the additional paths are controlled based on distribution states of packet units in the packet distributing step(See Col. 14 lines 7-20, Fig. 2 i.e. a step for controlling the allocation of path switching based on the allocation request packet).

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

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Consider claim 12 Nakahira discloses a wavelength path allocation method for a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme (See Col. 11 lines 55-62, abstract, fig. 2,3 i.e. a wavelength path allocation method for a node device comprising a wavelength division multiplexing used in optical communication network), comprising: a step in which packets of input traffic that are distributed (See Col. 12 lines 23-45, fig. 2, 11 i.e. a step that packets inputted from the router distributed), with top priority given to a semifixed initial path (See Col. 24 lines 55-59, Col. 23 lines 39-48, Fig. 3,11 i.e. optical path where priority is given for packet transmission and packets transmitted to the first OXC or the semifixed initial path), to the initial path (See Fig. 11 i.e. fig. 11 illustrates that packets distributed to different part of the device from the router) and to dynamically allocated additional paths are monitored (See Col. 12 lines 23-45, fig. 2 i.e. a node control section for monitoring or determining the allocated packets from the router); and a step in which allocations of the additional paths are controlled based on distribution states of packet units obtained by the monitoring (See Col. 14 lines 28-43, fig. 2 i.e. a step for controlling the allocation of the additional path based on the determination part or monitoring unit).

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

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Consider claim 13 Nakahira discloses a wavelength path allocation method for a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme(See Col. 11 lines 55-62, abstract, fig. 2,3 i.e. a wavelength path allocation method for a node device comprising a wavelength division multiplexing used in optical communication network), comprising: a step in which packets of input traffic that are distributed (See Col. 12 lines 23-45, fig. 2, 11 i.e. a step that packets inputted from the router distributed), with top priority given to a semifixed initial path(See Col. 24 lines 55-59, Col. 23 lines 39-48, Fig. 3,11 i.e. optical path where priority is given for packet transmission and packets transmitted to the first OXC or the semifixed initial path), to the initial path (See Fig. 11 i.e. fig. 11 illustrates that packets distributed to different part of the device from the router) and to dynamically allocated additional paths are monitored (See Col. 12 lines 23-45, fig. 2 i.e. a node control section for monitoring or determining the allocated packets from the router); a first control step in which allocations of the additional paths in a first wavelength path switching section are controlled based on distribution states of packet units obtained by the monitoring; a step in which packets of input traffic are stored in a buffer(See Fig. 11 i.e. Col. 11 lines 63-67 and Col. 12 lines 1-5, Col. 14 lines 21-26, fig. 3,11 illustrates that a router or a first switching section for switching wavelengths in accordance to the router control part); a packet distributing step in which packets are fetched from the buffer (See Col. 23 lines 39-48, Fig. 11, i.e. a

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packet distribution step using a switch function part for guiding packet transmission from the buffer), and, with top priority given to the initial path(See Col. 24 lines 55-59 i.e. optical path where priority is given for packet transmission, the packets are distributed to the initial path and to the additional paths (See Fig. 11 i.e. fig. 11 illustrates that a router for distributing packets to initial terminal, control function part, to the second switching device(OXC) via the buffer and switch function part); and a second control step in which allocations of the additional paths in a second wavelength path switching section are controlled based on distribution states of packet units in the packet distributing step(See Col. 14 lines 7-20, Fig. 2 i.e. path switching control part (2B4) or a second control step for controlling the allocation of packets based on the allocation request packet).

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

Consider claim 14 Nakahira discloses the wavelength path allocation method according to claim 11, wherein, in the packet distributing step, the packets are distributed to the additional paths (See abstract, Col. 5 lines 15-20, Fig. 11 i.e. fig. 11 a router for distributing packets to different paths).

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

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Consider claim 15 Nakahira discloses the wavelength path allocation method according to claim 13, wherein, in the packet distributing step, the packets are distributed to the additional paths (See abstract, Col. 5 lines 15-20, Fig. 11 i.e. fig. 11 a router for distributing packets to different paths).

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

Consider claim 16 Nakahira discloses the wavelength path allocation method according to claim 11, wherein, in the control step, at least one reserve additional path is allocated when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Consider claim 17 Nakahira discloses the wavelength path allocation method according to claim 12, wherein, in the control step, at least one reserve additional path is allocated when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Consider claim 18 Nakahira discloses the wavelength path allocation method according to claim 13, wherein, in the control step, at least one reserve additional path is allocated when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines

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46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets)

Consider claim 19 Nakahira discloses the wavelength path allocation method according to claim 14, wherein, in the control step, at least one reserve additional path is allocated when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Consider claim 20 Nakahira discloses the wavelength path allocation method according to claim 15, wherein, in the control step, at least one reserve additional path is allocated when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

## **Conclusions**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hibret A. Woldekidan whose telephone number is 27054145. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 5712723078. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. A. W./ Examiner, Art Unit 2613

> KENNETH VANDERPUYE SUPERVISORY PATENT EXAMINER